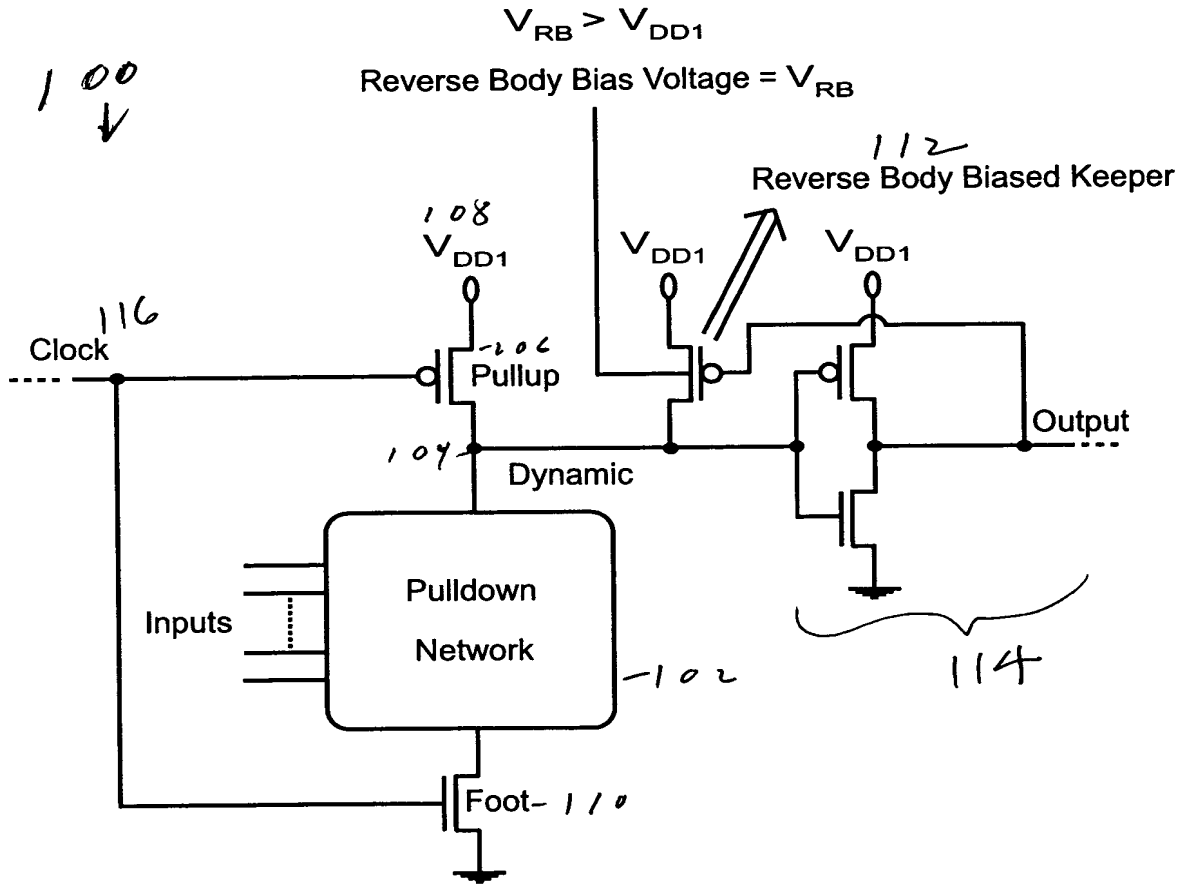

Fig. 1. A footed domino logic circuit based on the reverse body biased keeper domino logic (RBBKD) circuit technique.

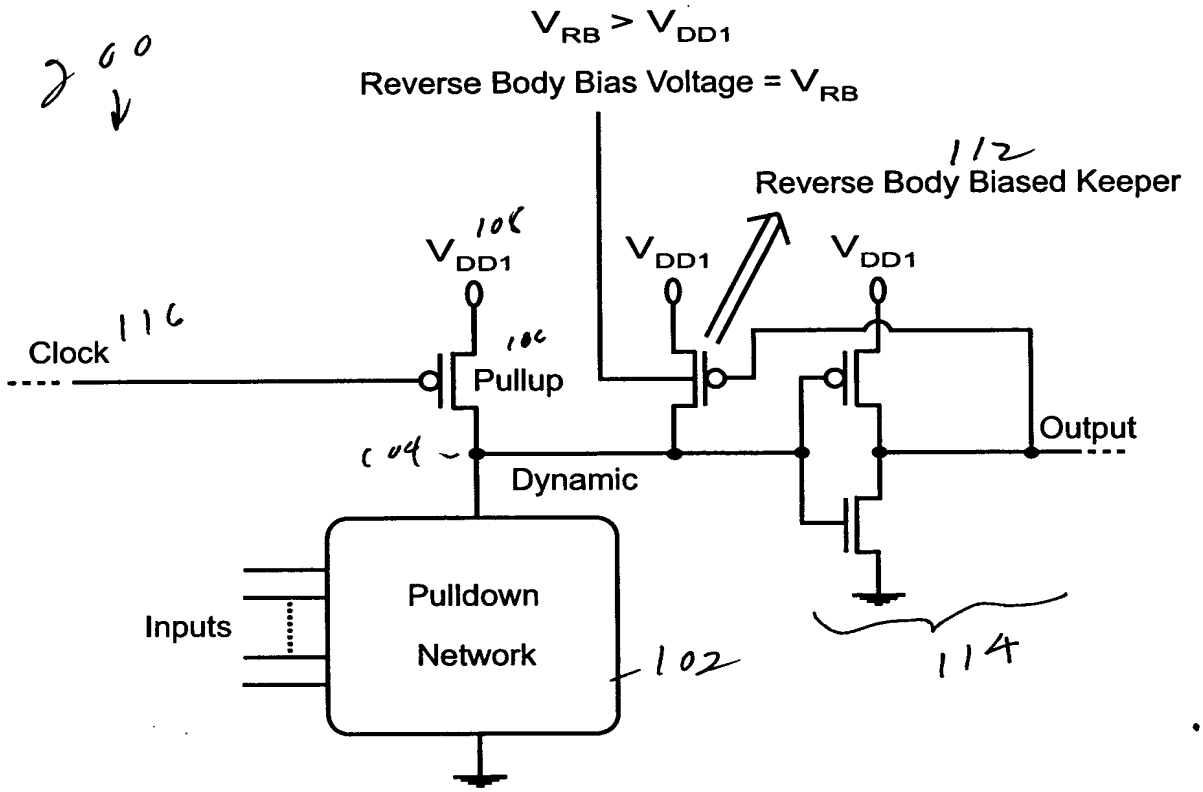

Fig. 2. A footless domino logic circuit based on the reverse body biased keeper domino logic (RBBKD) circuit technique.

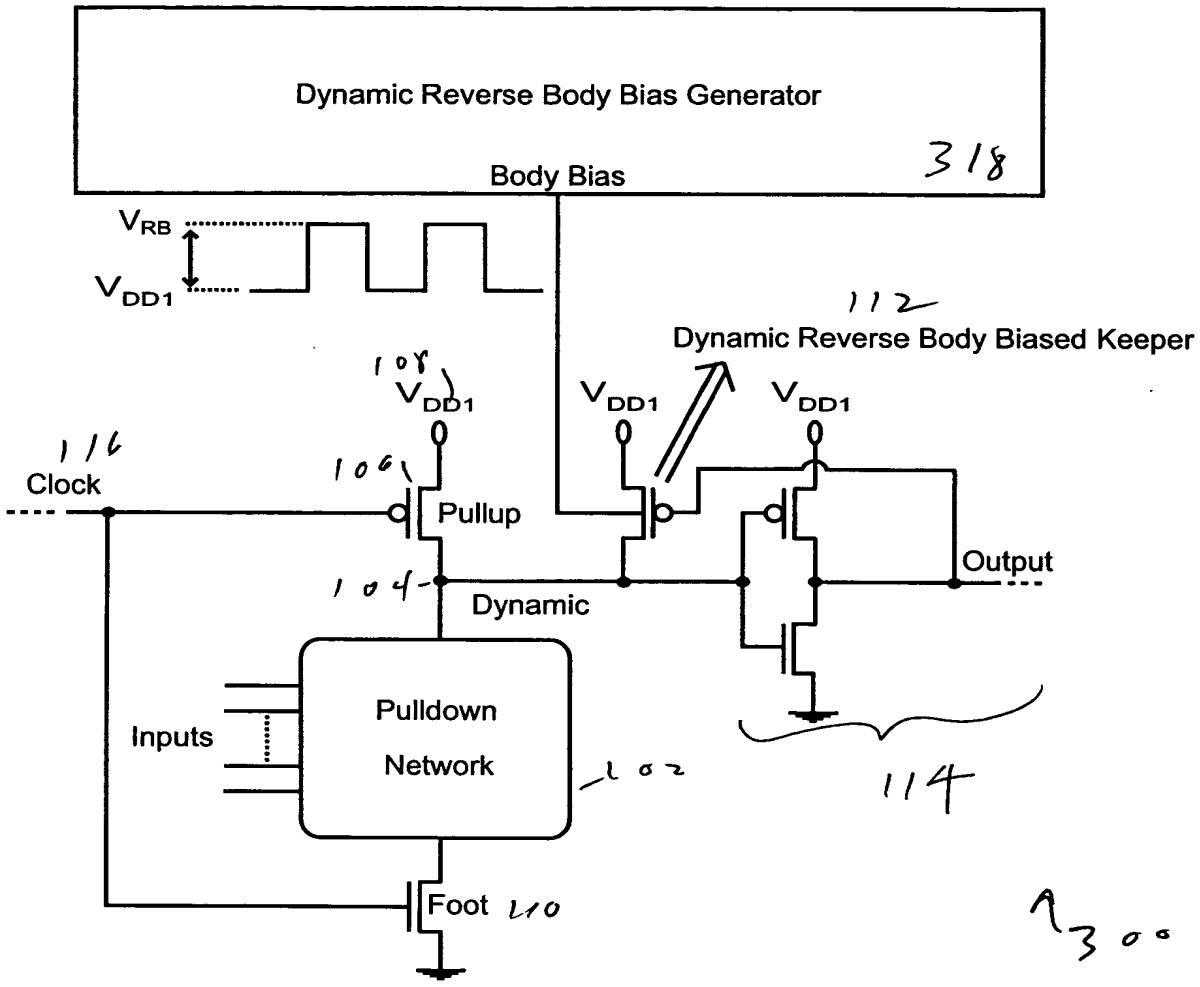

Fig. 3. A footed domino logic circuit based on the dynamic reverse body biased keeper domino logic (DRBBKD) circuit technique.

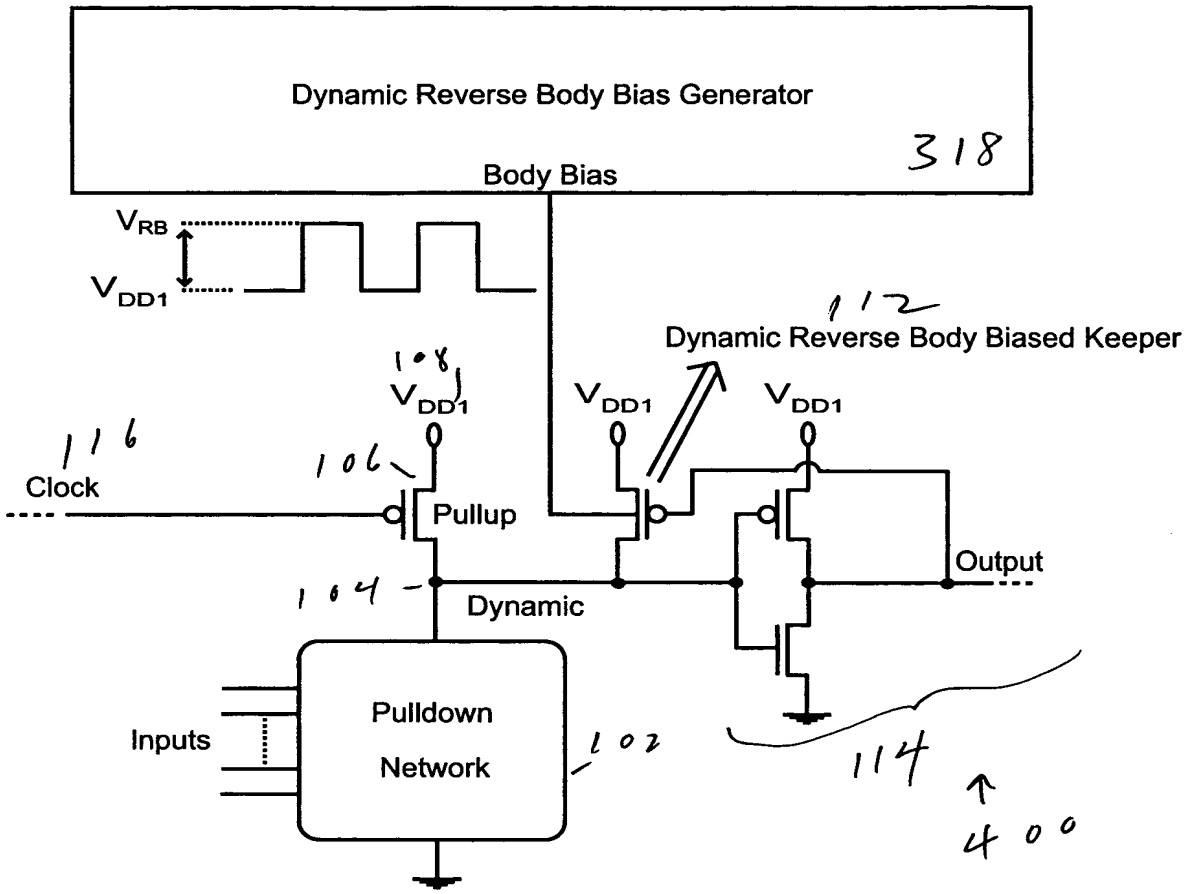

Fig. 4. A footless domino logic circuit based on the dynamic reverse body biased keeper domino logic (DRBBKD) circuit technique.

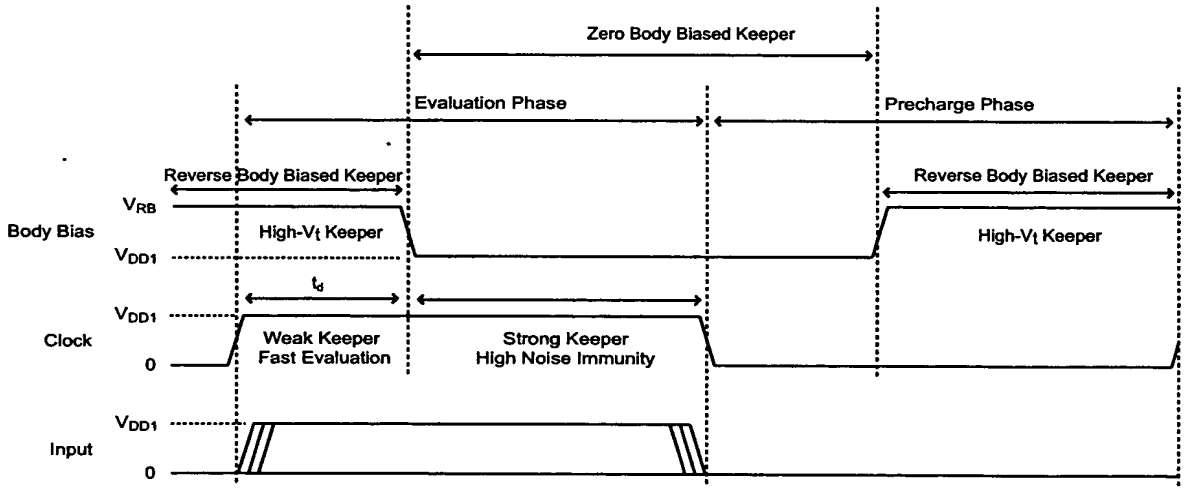

Fig. 5. Waveforms that characterize the operation of the proposed dynamic reverse body biased keeper domino logic (DRBBKD) circuit technique.

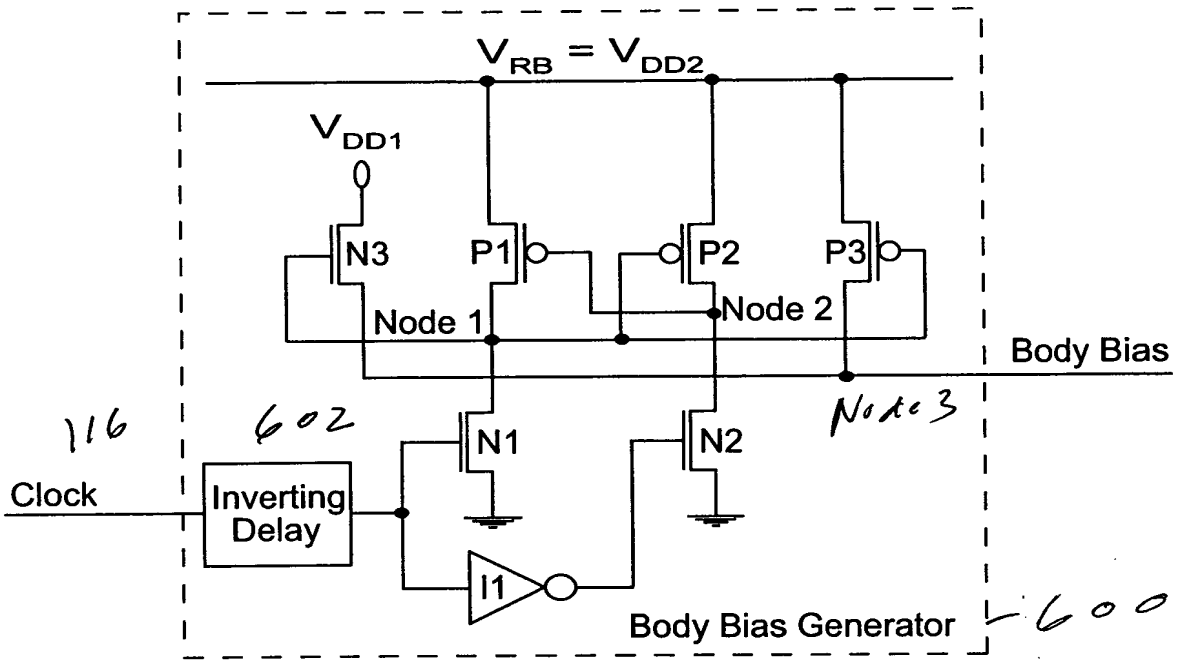

Fig. 6. A body bias generator applicable to the proposed dynamic reverse body biased keeper domino logic (DRBBKD) circuit technique [$V_{DD1} < V_{DD2}$ and $V_{tN3} < (V_{DD2} - V_{DD1})$].

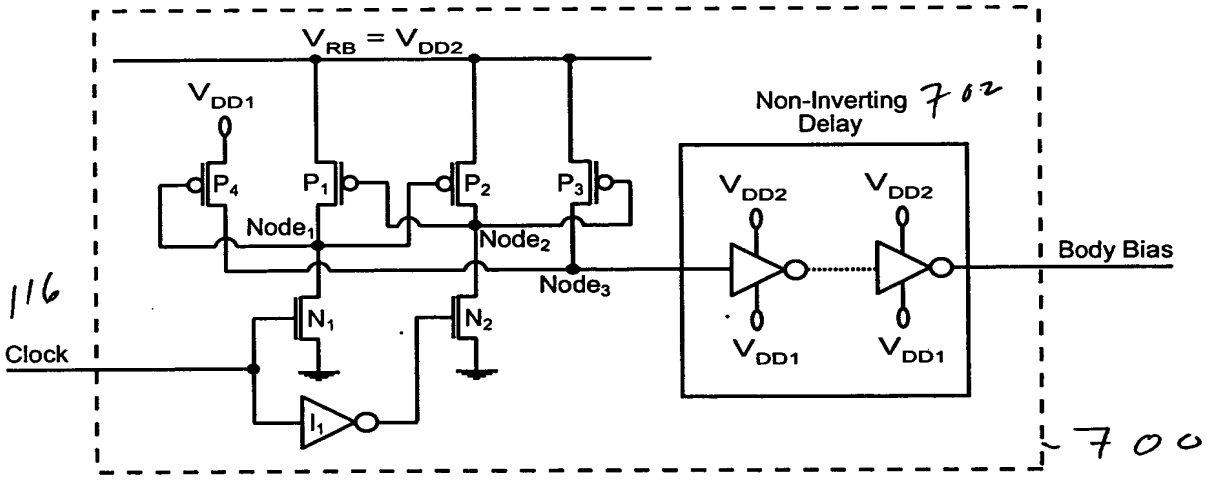

Fig. 7. A body bias generator applicable to the proposed dynamic reverse body biased keeper domino logic (DRBBKD) circuit technique ($V_{DD1} < V_{DD2}$). The body of P_4 can be connected either to V_{DD2} or to $Node_3$ in order to not turn on the source-to-body diode of P_4 when $Node_3$ transitions to V_{DD2}.

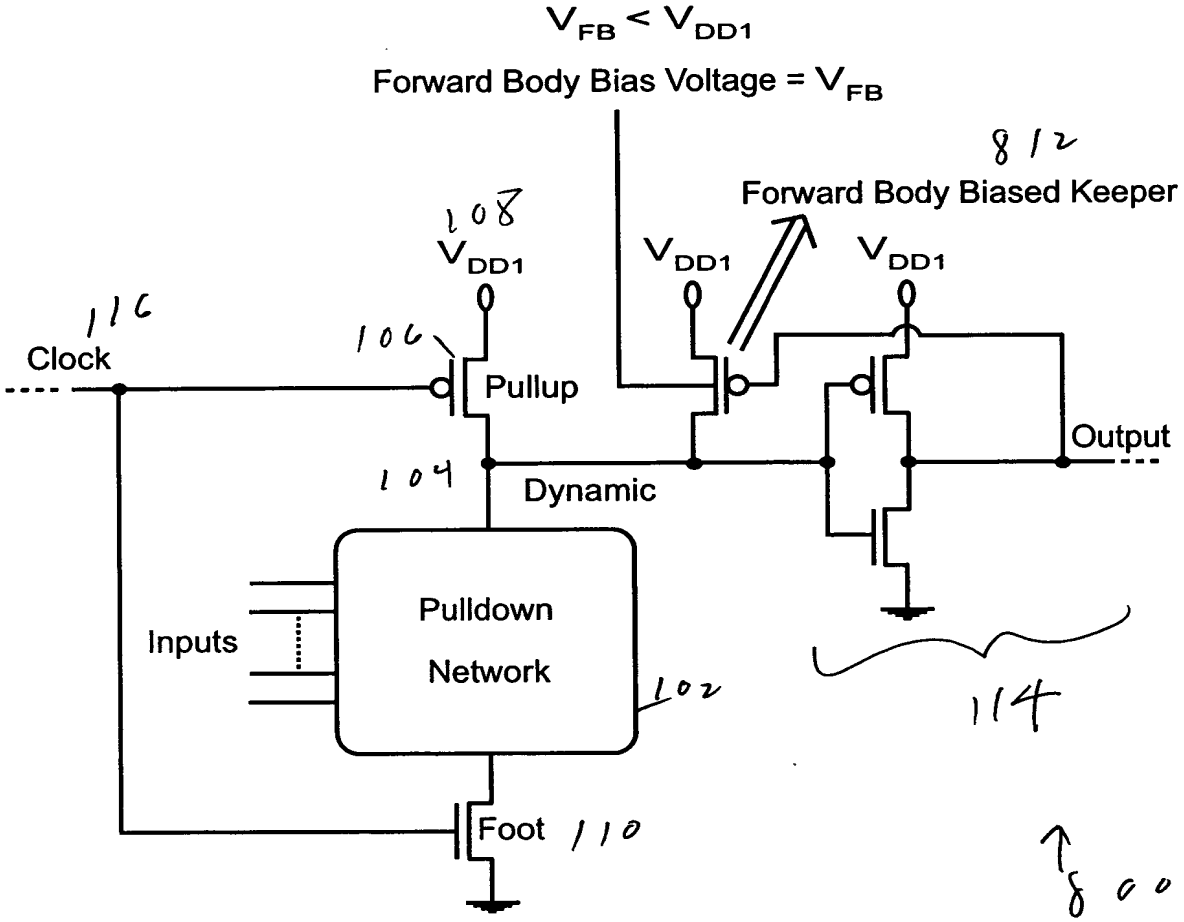

Fig. 8. A footed domino logic circuit based on the forward body biased keeper domino logic (FBBKD) circuit technique.

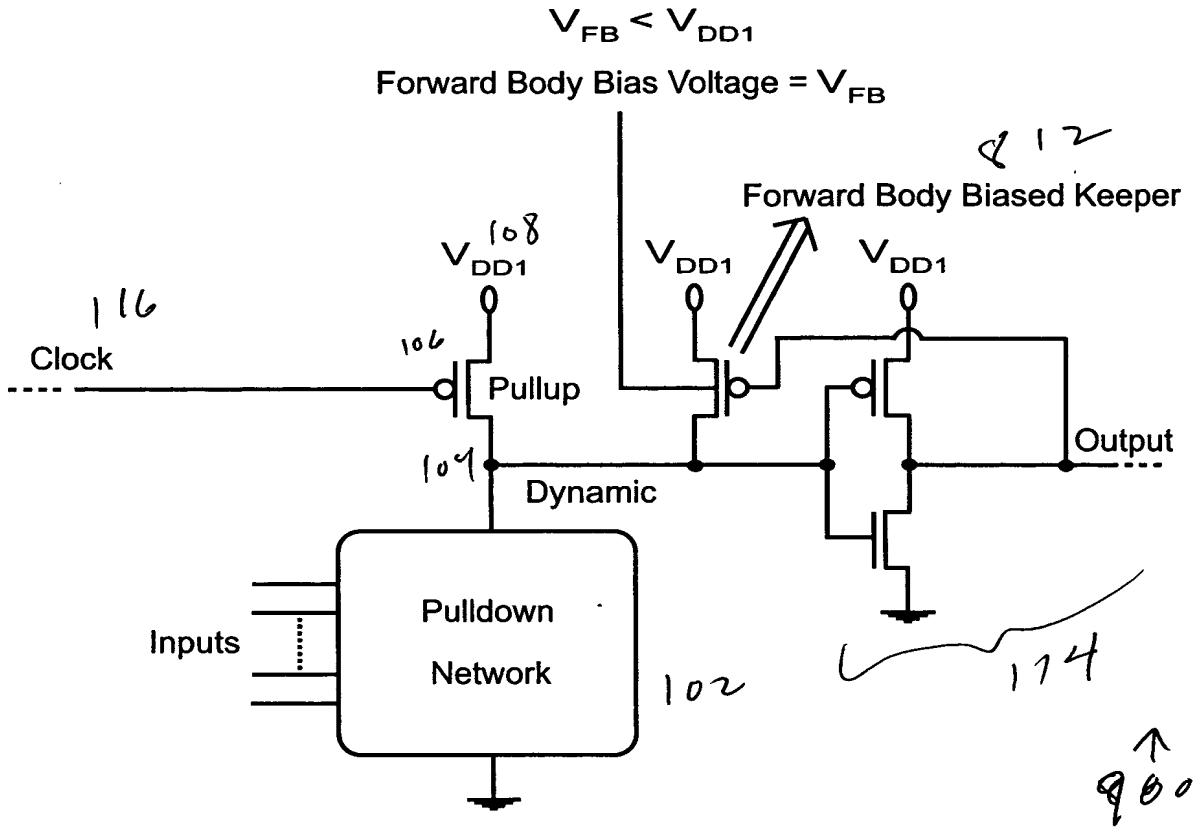

Fig. 9. A footless domino logic circuit based on the forward body biased keeper domino logic (FBBKD) circuit technique.

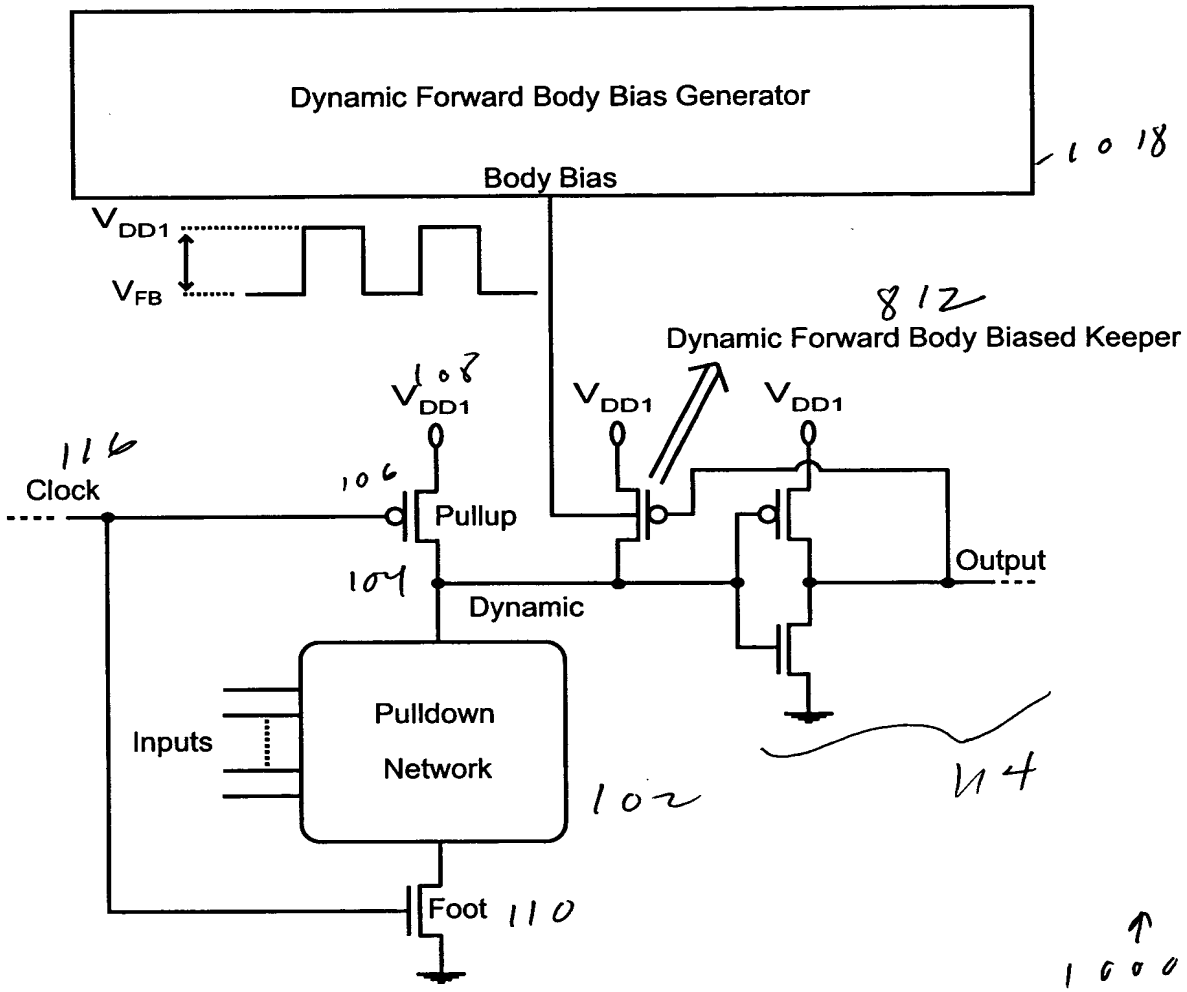

Fig. 10. A footed domino logic circuit based on the dynamic forward body biased keeper domino logic (DFBBKD) circuit technique.

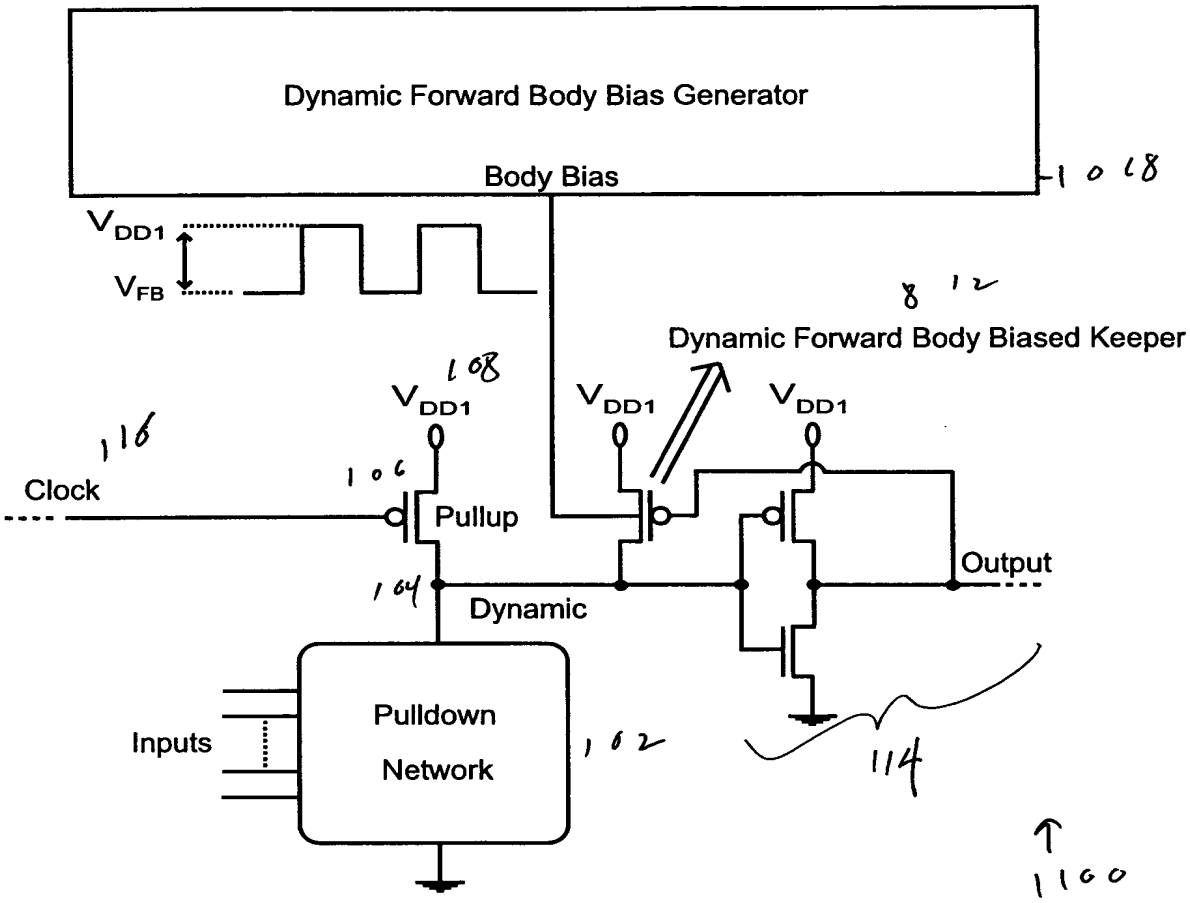

Fig. 11. A footless domino logic circuit based on the dynamic forward body biased keeper domino logic (DFBBKD) circuit technique.

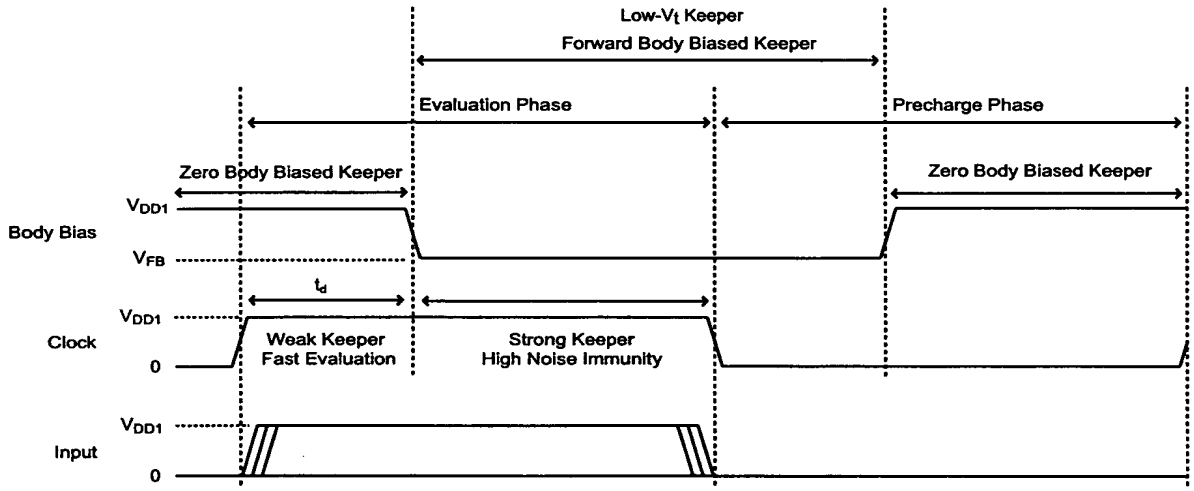

Fig. 12. Waveforms that characterize the operation of the proposed dynamic forward body biased keeper domino logic (DFBBKD) circuit technique.

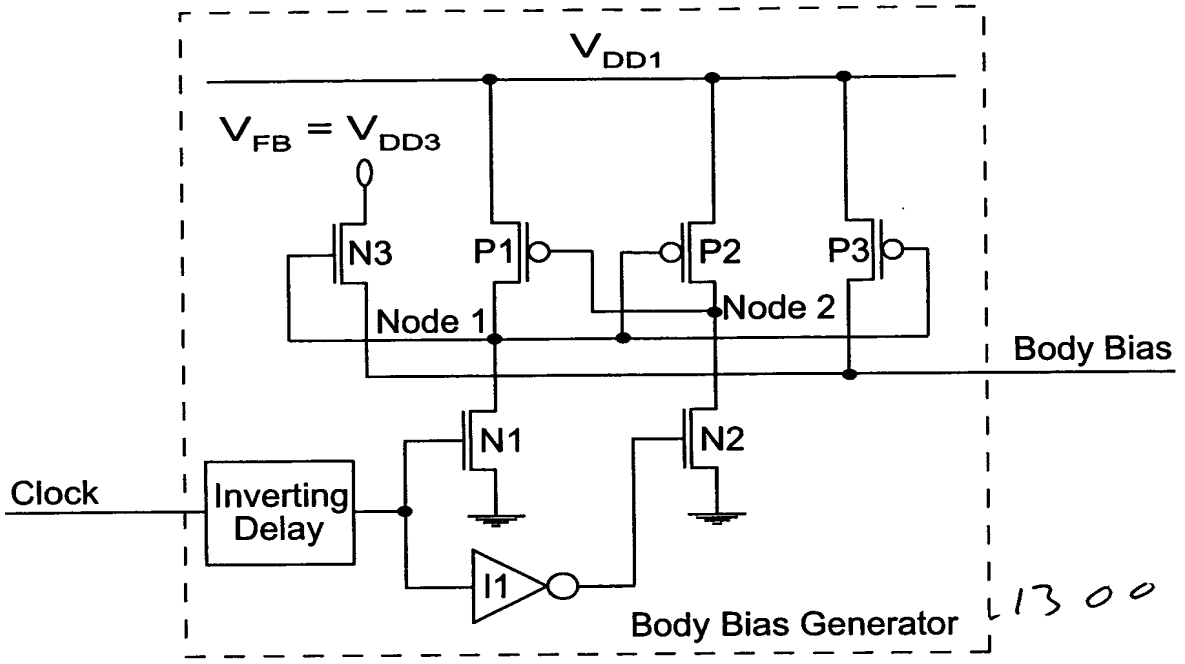

Fig. 13. A body bias generator applicable to the proposed dynamic forward body biased keeper domino logic (DFBBKD) circuit technique [$V_{DD3} < V_{DD1}$ and $V_{tN3} < (V_{DD1}-V_{DD3})$].

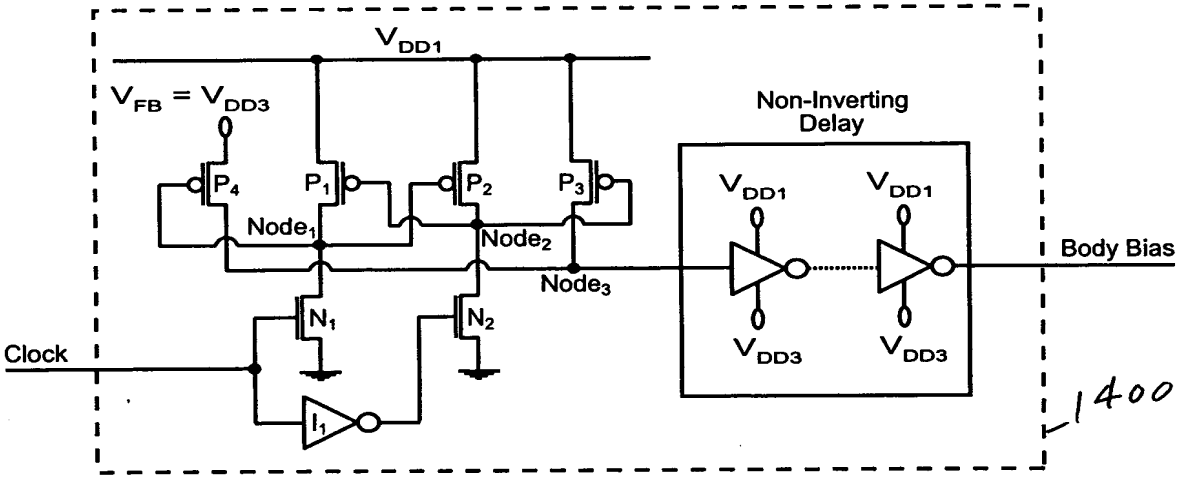

Fig. 14. A body bias generator applicable to the proposed dynamic forward body biased keeper domino logic (DFBBKD) circuit technique ($V_{DD3} < V_{DD1}$). The body of P_4 can be connected either to V_{DD1} or to $Node_3$ in order to not turn on the source-to-body diode of P_4 when $Node_3$ transitions to V_{DD1}.

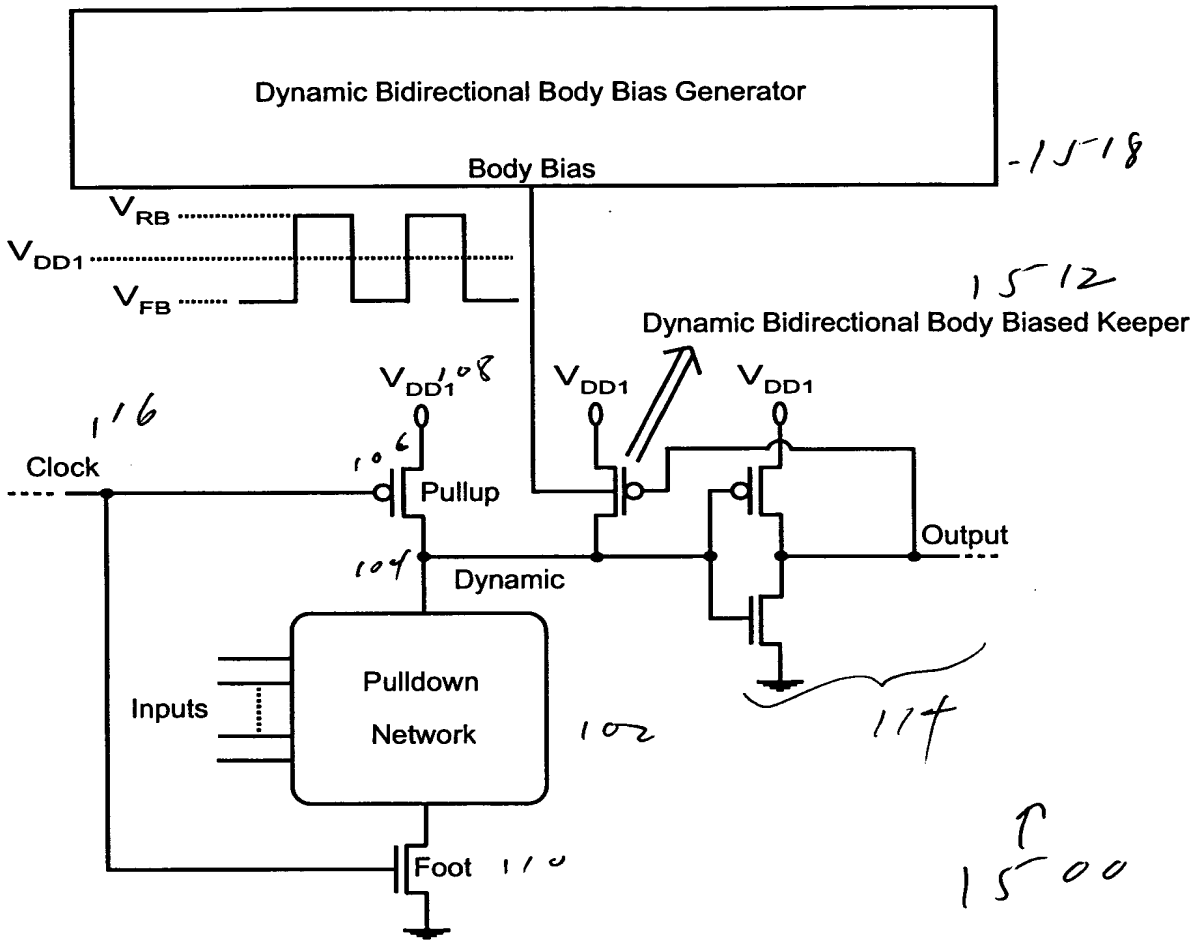

Fig. 15. A footed domino logic circuit based on the dynamic bidirectional body biased keeper domino logic (DBBBKD) circuit technique.

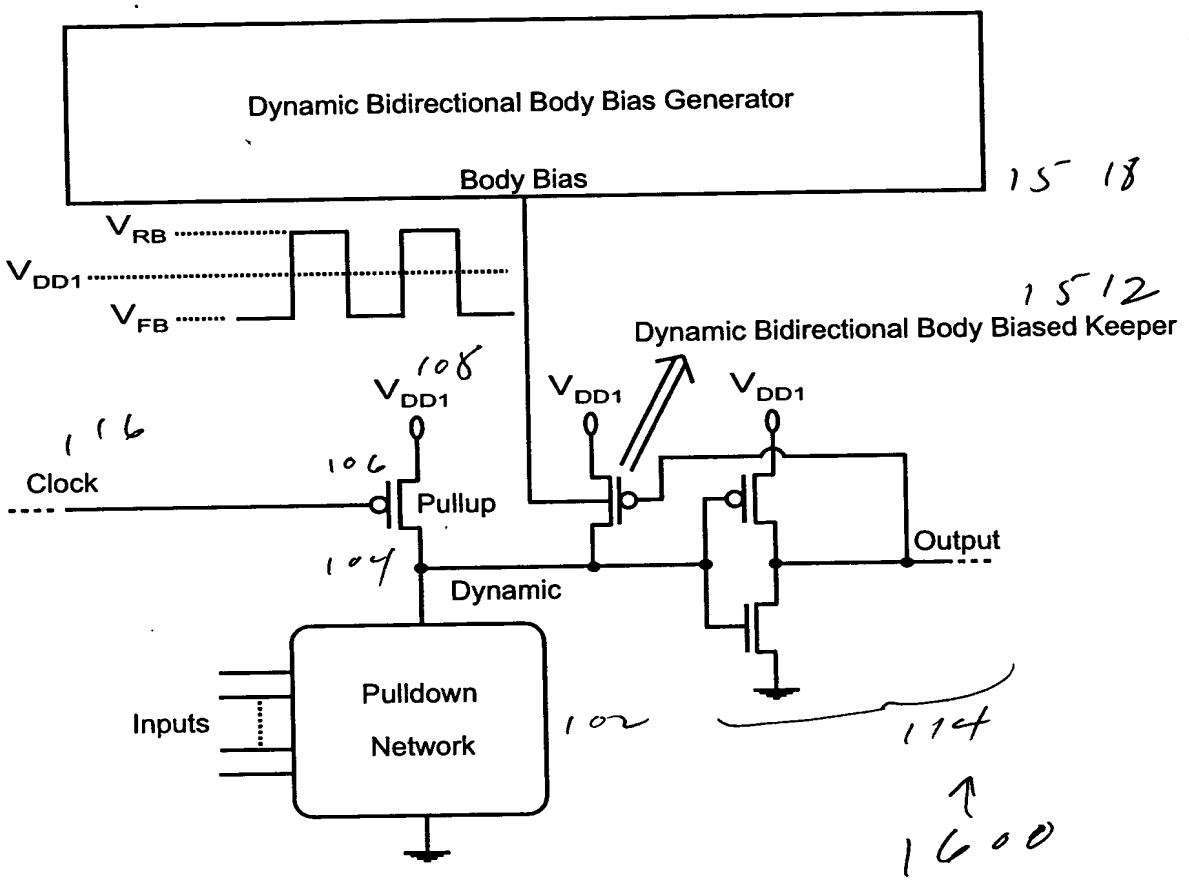

Fig. 16. A footless domino logic circuit based on the dynamic bidirectional body biased keeper domino logic (DBBBKD) circuit technique.

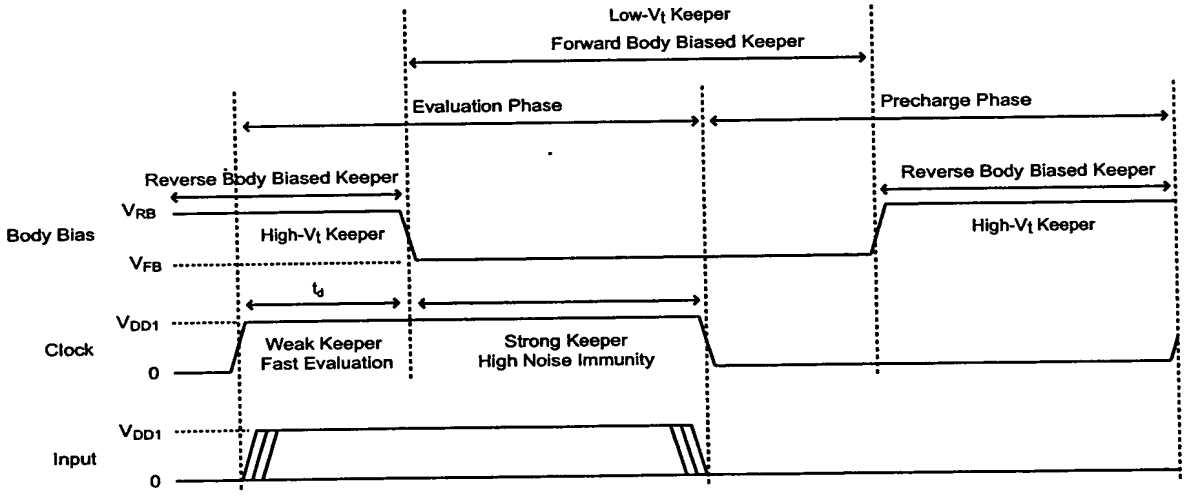

Fig. 17. Waveforms that characterize the operation of the proposed dynamic bidirectional body biased keeper domino logic (DBBBKD) circuit technique ($V_{FB} < V_{DD1} < V_{RB}$).

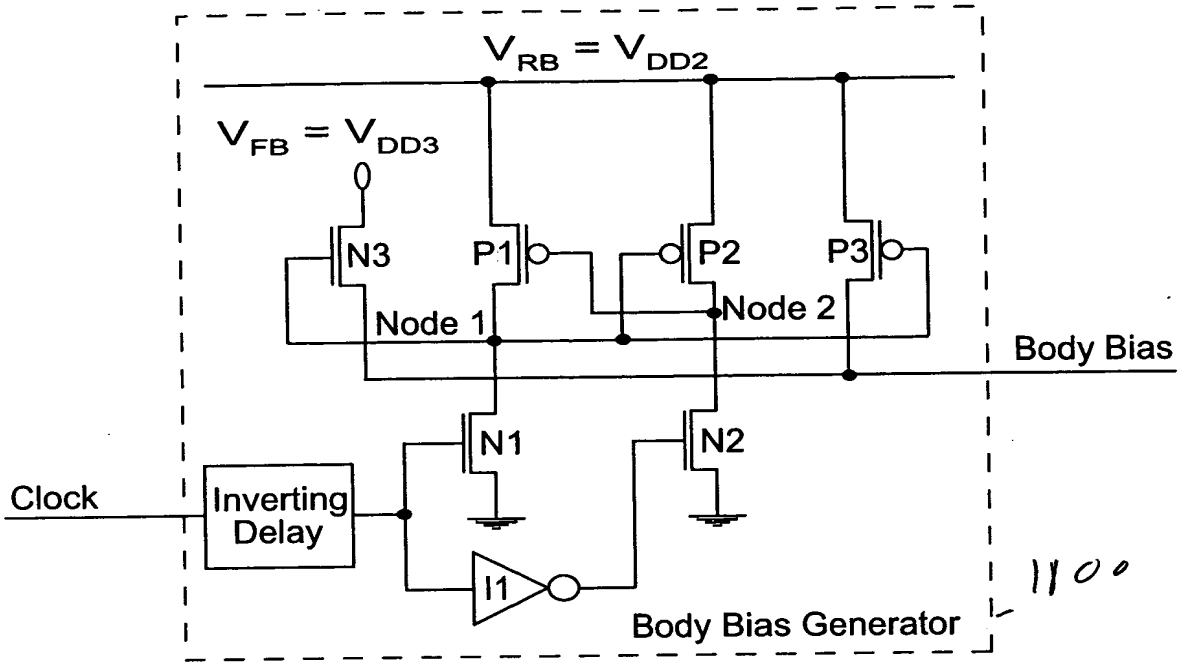

Fig. 18. A body bias generator applicable to the proposed dynamic bidirectional body biased keeper domino logic (DBBBKD) circuit technique [$V_{DD3} < V_{DD1} < V_{DD2}$ and $V_{tN3} < (V_{DD2}-V_{DD3})$].

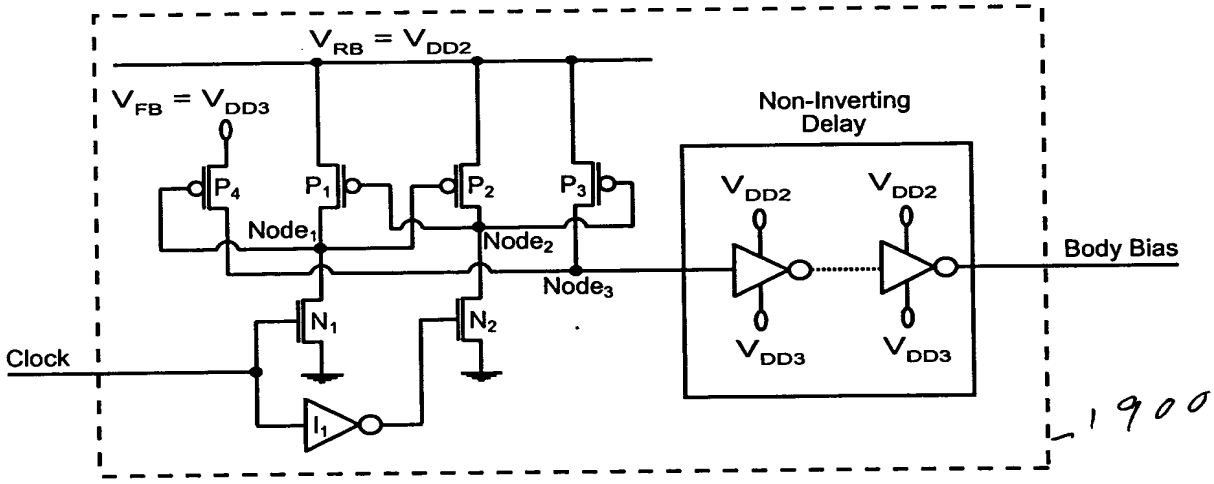

Fig. 19. A body bias generator applicable to the proposed dynamic bidirectional body biased keeper domino logic (DBBBKD) circuit technique ($V_{DD3} < V_{DD1} < V_{DD2}$). The body of P_4 can be connected either to V_{DD2} or to $Node_3$ in order to not turn on the source-to-body diode of P_4 when $Node_3$ transitions to V_{DD2}.

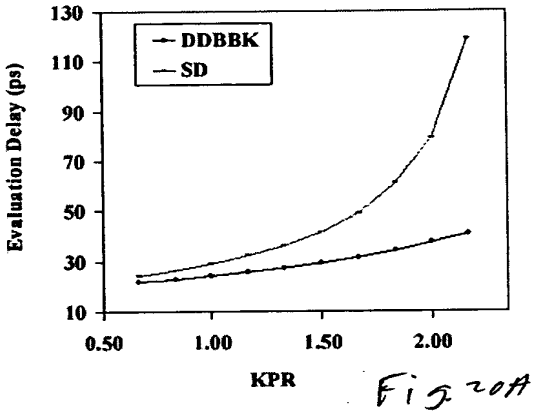

Fig 20A

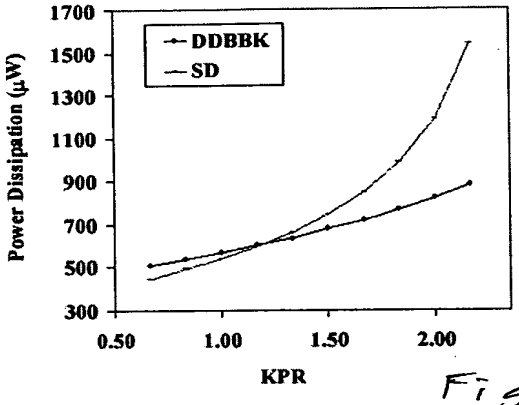

Fig 20B

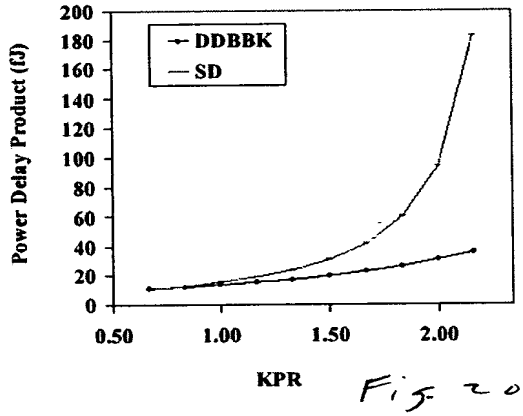

Fig 20C

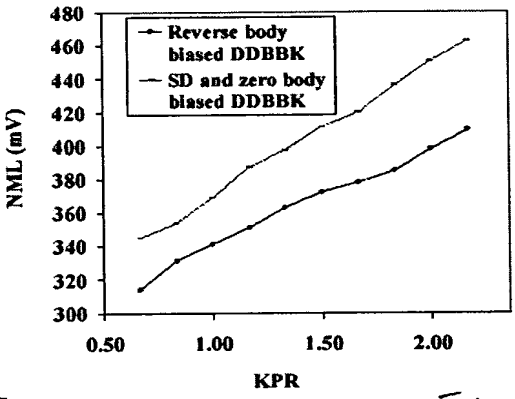

Fig 20D